

the catalyst substrate.

4. A catalyst assembly as defined in claim 3 further characterized by:

said container having a circular outer contour;

said substrate substantially fills said central section;

said end faces each having a tapered frustoconical section that extends into the interior of said tapered section, and a radially central flat disc section.

5. A catalyst assembly as defined in claim 1 further characterized by:

said contour of said end face being shaped with the use of computational fluid dynamics to minimize the pressure differential at each point of said end face.

ABSTRACT OF THE DISCLOSURE

An emission control catalyst assembly (10) for an engine includes a container (12) housing a catalyst substrate (34) that substantially fills an enlarged diameter section (18) of the container. The catalyst substrate has end faces (36 and 38) that axially intrude into interiors (40 and 42) of tapered sections (20 and 22) of container (12) to allow a more efficient shorter container that houses more catalyst material.